REMARKS

Claims 1-5 and 7-9 are all the claims pending in the application. Claims 1-5 and 7-9 presently stand rejected.

The drawings filed April 28, 2000 are objected to by the Examiner for failing to show every feature of the claimed invention. In particular, the Examiner asserts that the Figures do not show the first pocket surface formed on each of the ring-shaped side plates and the first pocket surfaces formed into an arc-shaped configuration as recited in claim 3. In response, Applicants note that there is a typographical error in claim 3 as amended on August 28, 2002. Claim 3 is hereby amended, which should obviate this objection.

Applicant filed a Request for Approval of Proposed Drawing Corrections on February 4, 2002 to add the legend --Prior Art-- to Figs. 14 and 15. The Examiner is respectfully requested to acknowledge receipt and indicate approval of the proposed corrections in the next communication from the office.

Claims 1, 2, 4 and 7-9 are rejected under 35 U.S.C. § 103(?) as being unpatentable over Bessone et al. in view of Baden.

Claims 3 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bessone et al. in view of German Patent No. 1062069.

Analysis

With respect to claims 1, 2, 4 and 7-9, the feature of the present invention of "the run out preventing portion is equal to or less than a roller effective length e and more than 0.75 of the roller effective length e" is not described in the cited references. As noted by the Examiner, this feature is not disclosed by Bessone.

The Examiner relies on Baden for disclosing this feature. Although Baden fails to explicitly disclose this recited range, the Examiner asserts that "the actual dimension is merely a matter of engineering design choice and the level of skill of one of ordinary skill in the art would produce a similar optimization, especially absent any evidence to the contrary, i.e., unexpected results."

According to MPEP § 2144.05, a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. See also, *In re Antonie*.[1]

Baden makes no reference to a lower bounds of the run-out preventing portion with respect to the roller effective length and does not recognize that the lower bound achieves a recognized result. On the other hand, the inventors of the present invention have discovered the optimum range for the length of the run-out preventing portion in relation to the effective roller length. The particular effects achieved by this recited range is discussed at page 22, line 4 to page 23, line 20 of the specification.

Since Baden fails to teach or suggest any effects of such a lower bound, this lower range is not obvious.

Applicants therefore respectfully submit that claims 1, 2, 4 and 7-9 are patentable over the combination of Bessone and Baden.

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[1] 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

With respect to claims 3 and 5, DE 1062069 discloses a roller bearing with a retainer including a number of pockets, which pockets 5 are punched in a radial direction. The pockets have reductions in cross-section formed by ribs 6 and 10. The ribs 6 and 10 are removed to form holding noses 8. The material 9 to be removed between the ribs is removed by e.g., broaching, etc.

One would not have been motivated to modify the front faces 21 of teeth 19 of Bessone to be curved as in DE '069. The motivation provided by the Examiner is to "conform to the curvature of a rolling element inserted in the rolling element receiving pocket". However, Bessone specifically teaches that the friction is reduced by reducing the contact surface area as stated at col. 3, lines 43-46:

"...while sliding contact between retaining structure 5 and rollers 4 is restricted solely to the small contacting surfaces of front faces 21 of teeth 19 and the lateral surfaces of the rollers."

Throughout Bessone, the benefits of reduced contact is taught. Thus, one would not have been motivated to form this face 21 into an arc to conform to the shape of the roller because it would increase the contacting surface.

In addition, nothing is disclosed about the movement of the corresponding tool in the axial and revolving direction. Furthermore, no recesses are formed in the corners of the pockets.

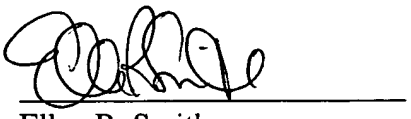
Applicants therefore respectfully submit that claims 3 and 5 are patentable over Bessone in view of DE '069.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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